

ABSTRACT

A Ni based alloy with a composition including Cr: from more than 43% to 50% or less, Mo: 0.1% to 2%, Mg: 0.001% to 0.05%, N: 0.001% to 0.04%, Mn: 0.05% to
5 0.5%, and where necessary also including either one, or both, of Fe: 0.05% to 1.0% and Si: 0.01% to 0.1%, and the remainder as Ni and unavoidable impurities, in which the quantity of C amongst the unavoidable impurities is restricted to 0.05% or less. It has excellent corrosion resistance relative to supercritical water environments containing inorganic acids. Also provided is a member for a supercritical water process reaction
10 apparatus comprises the Ni based alloy.